Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

- 1. (currently amended) A process for producing a diaphragm with applied catalytically active layer for use in low-temperature fuel cells, comprising the following steps:
- a) processing at least one a hydrophobic solvent, a catalytically active material and a polymer solution to form a paste, which does not contain any hydrophilic solvents[[.]]:
 - b) applying the paste in layer form to a polymer diaphragm[[,]]; and
- c) pressing the diaphragm with the applied paste with the application of heat so that the at least one solvents escapes and the catalytically active material is fixed on the diaphragm.
- 2. (currently amended) A process as set forth in claim 1, wherein the paste is applied to the diaphragm in layer form by screen printing.
- 3. (previously presented) A process as set forth in claim 1, wherein a further binder was added to the paste.
- 4. (previously presented) A process as set forth in claim 1, wherein a plasticizer was mixed with the paste
- 5. (previously presented) A process as set forth in claim 1, wherein the paste applied to the diaphragm in layer form is dried prior to the pressing operation at temperatures of between 30 and 80°C.